

Advanced Bat Survey Techniques Training course



Slindon National Trust Estate Bat Research Project

Following on from the success of this course in summer 2015, we are running it again. The course covers all aspects of advanced bat survey techniques and will be held at the National Trust Slindon Estate, in conjunction with a research project at the site, predominantly on barbastelle and Alcahloe bats.

In previous years 13 species have been caught during the course, including Geoffroy's bat. Activities have included radio tracking, identifying new roosts sites for serotine, Alcahloe, and brown long-eared as well as discovering three new maternity colonies of barbastelle bats locally.

The course is aimed at a wide range of participants from experienced licenced bat workers and enthusiastic amateurs through to professional ecological consultants looking to expand their knowledge, experience and understanding of advanced bat survey techniques, and how these techniques can be used to gather greater information, autecology, species presence and knowledge of how species are using the local landscape.

The course will span a seven day (six night) period from Saturday 30th July 2016 through to Friday 5th August 2016 with both residential and non-residential options available. The residential option includes accommodation in the Slindon National Trust basecamp and all meals and packed lunches are included.

The aim of the course is to train and to provide hands on experience for all participants on advanced survey techniques in addition to funding, conducting, and assisting on a landscape level bat research and radio tracking project on the National Trust Slindon estate in Sussex. This information is being used to inform a number of research projects including a LIFE+ project in partnership with the South Downs Nation Park to enhance the South Downs for barbastelle bats.

Course Content

The course is run by some of the most experienced bat workers in the UK including some of the first researchers using sonic lures for trapping bats and researchers working on some of our rarest species.

Daytime sessions

- Bat ecology and conservation.
- Pros and cons of different survey techniques.
- Mist netting and erecting mist nets
- Harp trapping and erecting harp traps
- Use of a sonic lure
- Advanced bat identification
- Assessing trees for bats
- Selecting optimum trap locations
- Radio-tagging bats and locating tree roosts.
- Identifying when advanced survey techniques are necessary.
- Planning projects, radio tracking and licencing.



Alcathe



Bechstein's



Barbastelle

Night time surveys

- Mist netting bats and removal from nets
- Harp trapping bats
- Use of the sonic lure and different calls available
- Handling and bat identification.
- Use of night vision cameras
- Radio tracking tagged bats.

All inclusive residential course - £595

Non-residential including lunches and evening meals - £495
(part participation may be possible)

To book this course or for further details please contact:
Daniel Whitby – admin@batcru.org

BatCRU is a registered charity – No 1162707



Advanced Bat Survey Techniques Accommodation and Facilities

Slindon Basecamp is one of 35 purpose-built or converted buildings which now provide simple accommodation in well-provided rural locations. Primarily for groups of volunteers who wish to take part in practical conservation work for the National Trust it is also available for hire by recreational, educational and corporate groups.

The basecamp is situated in the rural countryside of West Sussex yet is within easy reach of the coast or towns such as Chichester and Worthing. It was converted in the early 1980s from the former estate offices and can now accommodate self-catering groups of up to seventeen people. It is well-equipped and has a high standard of facilities:



Three dormitories:

- 1 sleeping ten
- 1 sleeping six
- 1 individual leader's room



Fully-equipped kitchen/dining area with a gas cooker, 1 fridge 1 freezer, utensils, crockery and cutlery.



The local garage shop is well stocked whilst Chichester has Sainsbury and Tesco stores.



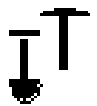
The basecamp is fully-equipped with toilets and showers (the two main dormitories have additional washbasins). A washing machine and drying room are also available.

H

The building has central heating and wood burner in the lounge.

P

There is adequate parking in the adjacent estate yard.



A full range of hand tools is available, sufficient to tackle most tasks.



Nearby Trust properties include the South Downs, Petworth House, Uppark and the 3,500-acre Slindon Estate.

Conditions

The basecamp must be kept clean, tidy and left in as good a condition as it was found. Damages must be reported and it is then at the Trust's discretion whether these are charged to the group.



SLINDON BASECAMP



Kitchen



10 Bed Dorm



Lounge



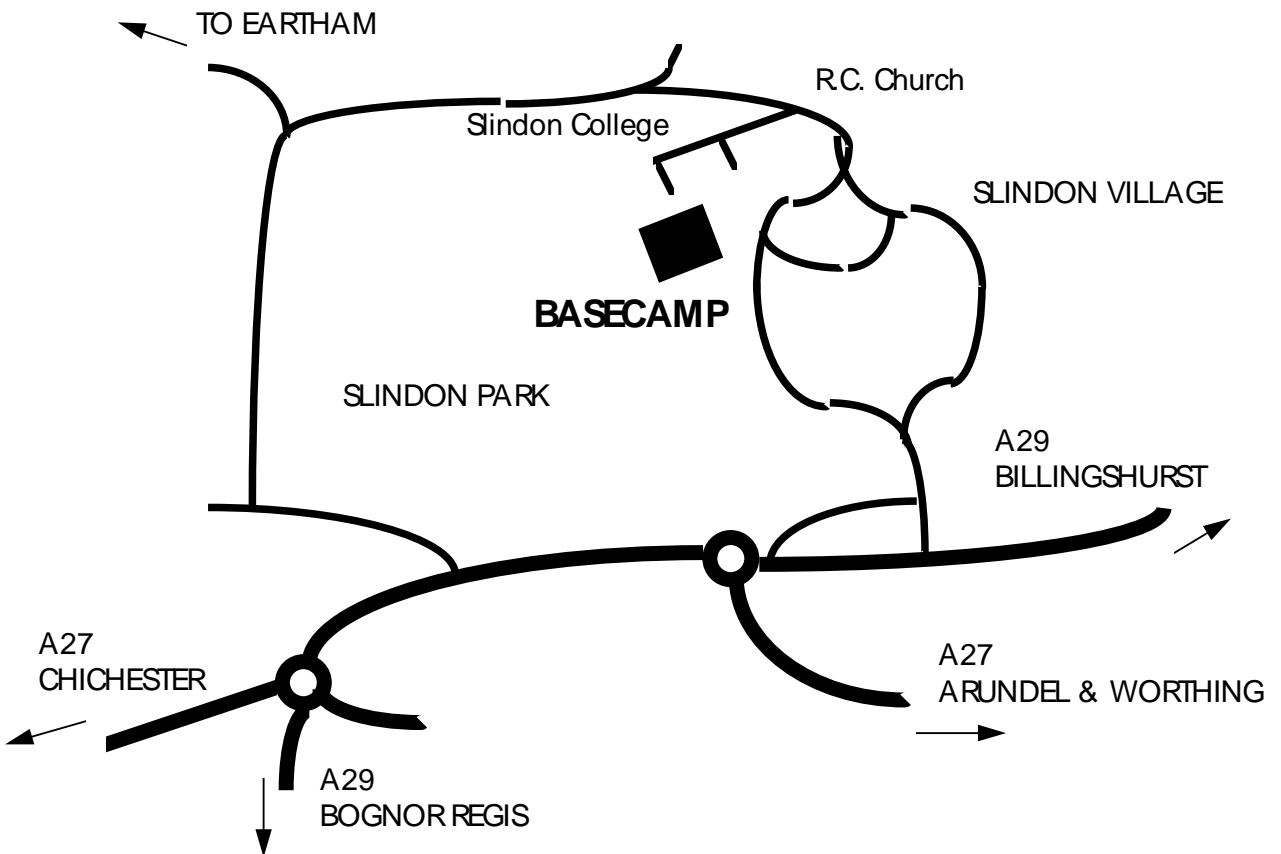
6 Bed Dorm



Location

Directions

The basecamp is easy to find on the northern edge of the village. Slindon is situated off the A29, close to its junction with the A27. From the A29 go through the village and shortly after passing the Catholic Church there is a left turn immediately before a sharp left-hand bend. This is the basecamp entrance which is shared with Slindon College.



West Sussex Downs Estate Office,
SLINDON, nr. Arundel,
West Sussex, BN18 0RG

Tel: (01243) 814730
During normal office hours



Advanced Bat Survey Techniques Equipment list

All delegates will need:

- Sleeping bag
- Pillow
- Towel
- Washing kit
- Field clothes – for all weathers
- Footwear – boots or wellies
- Head torch
- Hand torch
- Bat handling gloves
- Daypack/rucksack
- Alarm clock
- Notepad and pens
- Ruler/calipers
- Camera
- Bat detectors – if you have one
- Bring any of your own equipment if you wish to use it
- Treats for the organisers
- Topics for discussion, project plans etc.

Advanced Bat Survey Techniques

Course Tutor Profiles

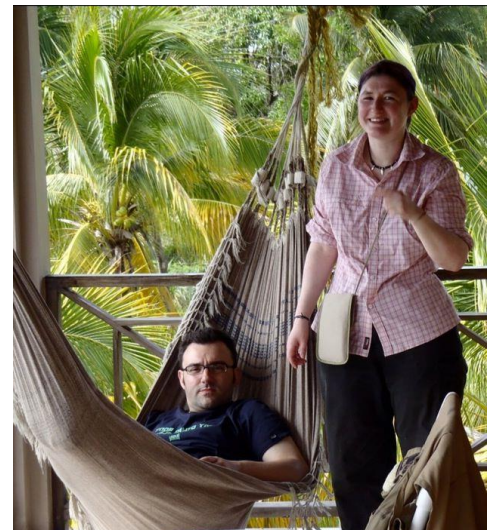
Daniel Whitby

Daniel is the director of AEWCLtd and founder of the Bat Conservation and Research Unit, a professional ecologist for over 10 years and was instrumental in the development and field trials of the Sussex autobat. Daniel has radio tagged all 17 UK species and has expert knowledge of a wide range of species notably barbastelles, Bechsteins, grey long-eareds and Alcaethoe. Daniel provides training and advice to many organisations including Natural England and the Bat Conservation Trust. Email. daniel@awc.co.uk Tel. 07764 813002



Steve and Fiona Parker

Steve and Fee are very active voluntary bat workers. They help lead the South Lancashire Bat Group and have vast experience in training, leading and organising bat surveys, walks, talks and bat care. They have worked on projects overseas including Trinidad, Thailand and Poland. Steve is a BCT Trustee where he represents bat groups.



Daniel Hargreaves

Daniel has been fascinated with bats since a young age and has travelled extensively working with many different species around the World. Daniel has experience of a wide range of survey methods and conservation techniques. In 2012 he was awarded the Pete Guest award by the Bat Conservation Trust for outstanding voluntary contribution to bat conservation. Daniel has a keen interest in night vision filming and spends hours documenting bat behaviour. Email. daniel@batdan.co.uk Tel. 07786 546800





Advanced Bat Survey Techniques Programme

Saturday 30th July

12-1pm- arrive at site, settle in and introductions.

2pm – Overview of the week, project plan

3pm – Trapping methods, effective use of acoustic lures and trapping guidelines

Evening- Trapping surveys to catch/tag bats.

Sunday 31st July

Daytime – find all bats with radio tags attached

3pm –Radio tagging, radiotracking, planning, equipment and methods

Evening – emergence survey of tagged bats/trapping

Monday 1st August

Daytime – find all bats with radio tags attached

3pm – Infra-red camera systems – emergence surveys and equipment- see what you could be missing and what needs to be recorded.

Evening – split into teams, radiotracking, emergence surveys and trapping.

Tuesday 2nd August

Daytime – find all bats with radiotags attached

3pm – bat identification, using keys and highlighting important features of each UK species

Evening – split into teams, radiotracking, emergence surveys and trapping.

Wednesday 3rd August

Daytime – find all bats with radiotags attached

3pm – bats and trees

5pm – BBQ

Evening - split into teams, radiotracking, emergence surveys and trapping.

Thursday 4th August

Daytime – find all bats with radiotags attached

3pm – Project planning and licensing.

Evening – split into teams, radiotracking, emergence surveys and trapping.

Evening – Swarming survey

Friday 5th August

Daytime – find all bats with radio tags attached

3pm – final session and project summary. Group discussion on topics of your choice.

Evening – open options

Saturday 6th August– vacate site by 11am. Find bats with tags on.

Advanced Bat Survey Techniques

Radio Tracking

“The continuous monitoring of the position and range of a individual bat”

1) Radio Tracking Methods:

- VHF Radio (Most commonly used for bats)
- Satellite
- GPS (the future?)

2) Equipment required:

- Tag (transmitter) – size, pulse rate, frequency, antenna
- VHF Receiver – makes, models, use
- Aerials – shape, size

3) Tag attachment and ethics

- purpose and time of year
- species, weight, size
- preparation
- follow up

4) Field techniques:

- locating roosts
- following and mapping foraging and commuting areas
- on foot, by car and by plane?

5) Records and interpreting data:

- what to record?
- how to present the information
- sharing information

6) Case studies:

- Nathusius pipistrelle
- Serotine bats
- Bechstein's

Advanced Bat Survey Techniques

Trapping methods and acoustic lures

“How to catch bats and increase your capture rate”

1) Equipment

- Harp traps – design, sizes, number of banks,
- Mist netting – sizes, designs, triple highs, canopy
- Hand nets – poles, shapes sizes

2) Ethics, welfare and purpose

- Why?
- When?
- Bat welfare

3) Methods, location and choice of trap

- Site and study consideration
- Harp trap set up and location
- Mist net set up and location
- Combinations

4) Acoustic lures

- History and theory
- Equipment
- Call types and volume
- Ethics and welfare
- Harp traps and mist nets

5) Other methods

- Hand nets
- Pole traps
- Triple high
- Canopy nets
- Flick nets

Advanced Bat Survey Techniques

Night vision cameras

“The ability to see and record bat behaviour in complete darkness”

1) Technology

- Scopes – binoculars, hunting scopes
- Cameras – makes, models,
- Infra red lights

2) Practical set up

- Situation – roost type, distance, field of view
- Zoom, focus
- Tripods, batteries and spares

3) Advantages and disadvantages

- Unaltered behaviour
- Accurate – observer tiredness/concentration, swarming etc
- Non-echolocating bats

4) Filming and editing

- Purpose – survey, story, behaviour
- Scene
- Editing software

5) Case studies

- Lesser Horseshoe counts
- Alcatraz tree roost
- Pipistrelle roost counts

Advanced Bat Survey Techniques

Bat Identification and ecology

“The identification of individual species and their life histories”

1) Identification keys and guides

- How keys work – field keys and museum keys
- Standard measurements

2) UK species list

1. *Barbastella barbastellus*
2. *Rhinolophus ferrumequinum*
3. *Rhinolophus hipposideros*
4. *Eptesicus serotinus*
5. *Nyctalus noctula*
6. *Nyctalus leisleri*
7. *Plecotus auritus*
8. *Plectous austriacus*
9. *Pipistrellus nathusii*
10. *Pipistrellus pipistrellus*
11. *Pipistrellus pygmaeus*
12. *Myotis daubentonii*
13. *Myotis nattereri*
14. *Myotis bechsteinii*
15. *Myotis brandti*
16. *Myotis mystacinus*
17. *Myotis alcathoe*

3) Vagrants:

- Myotis myotis*
- Vespertilio murinus*
- Myotis emarginatus*
- Myotis dasycneme*
- Pipistrellus kuhlii*

Advanced Bat Survey Techniques

Bats and trees

“All UK species use trees for roosting, foraging and commuting”

1) Why trees

- Roosting
- Foraging
- Commuting

2) Tree roost features

- Bat Tree Habitat Key
- Roost features

3) Species ecology and tree roosts

- Barbastellus barbastellus*
- Nyctalus noctula*
- Myotis bechsteinii*
- Myotis alcathoe*
- Others....

4) Assessment of trees

- From the ground – binoculars, torches, features, timing
- Climbing
- Endoscopes
- Difficulty

5) Case studies

- Natterer’s tree roost
- Noctule tree roost
- Daubenton’s tree roost
- Barbastelle dawn swarming

Advanced Bat Survey Techniques

Planning projects and licensing

“Bringing it all together and starting your project”

- 1) Planning your project
 - What do you need to know?
 - How and when?
 - Why?
 - Collaboration

- 2) Licenses
 - Proposal
 - Training and experience
 - References

- 3) Funding and equipment
 - Funding sources
 - Equipment – buy, borrow, make

- 4) Recording
 - Keeping records
 - Reports
 - Confidentiality
 - Access – social media, website, conference, talks etc.